

WHAT IS CLAIMED IS:

1. Composite cylinder, comprising a liner which is wrapped over a substantial part of its length with composite fibers, characterized in that the liner is a pre-existing preformed second hand pressurized-gas cylinder for compressed, liquefied or dissolved gases.
2. Composite cylinder according to claim 1, characterized in that the wall thickness of the pressurized-gas cylinder is reduced over a substantial part of its length.
3. Composite cylinder according to claim 1, characterized in that the pressurized-gas cylinder is cylindrical over a substantial part of its length.
4. Composite cylinder according to claim 1, characterized in that the wall thickness of the pressurized-gas cylinder is obtained through machining.
5. Composite cylinder according to claim 1, characterized in that the surface of the pressurized-gas cylinder is sandblasted.
6. Composite cylinder according to claim 1, characterized in that the pressurized-gas cylinder is made from a material selected from the group consisting of plastic, steel, stainless steel and aluminum.
7. Composite cylinder according to claim 1, characterized in that the liner is a seamless metal liner which is vacuum tight.
8. Composite cylinder according to claim 1, characterized in that most of the pressure resistance of the composite cylinder is from the liner.
9. Composite cylinder according to claim 8, characterized in that at

least 85% of the pressure resistance of the composite cylinder is from the liner.

10. Composite cylinder according to claim 9, characterized in that at least 85% of the pressure resistance of the composite cylinder is from the liner.
11. A process for producing a liner for a composite cylinder for a higher filling pressure, characterized in providing a preexisting preformed pressurized-gas cylinder previously used at lower filling pressure for compressed, liquefied or dissolved gases.
12. A process according to claim 11, characterized in surface treating or machining a substantial part of the length of the pre-existing cylinder to reduce its wall thickness.
13. A process according to claim 12, characterized in that the pre-existing cylinder was previously used at a filling pressure of 150 bar to 200 bar.
14. A process according to claim 13, characterized in that the higher filling pressure is about 300 bar.
15. A process according to claim 11, characterized in that the pre-existing cylinder was previously used at a filling pressure of 150 bar to 200 bar.
16. A process according to claim 15, characterized in that the higher filling pressure is about 300 bar.
17. A process according to claim 11, characterized in that the higher filling pressure is about 300 bar.
18. A process according to claim 10, characterized in that the liner is a seamless metal liner which is vacuum tight.

19. A process for producing a composite cylinder for a higher filling pressure, comprising providing a liner and wrapping the liner over a substantial part of its length with composite fibers, characterized in that the liner is provided in form of a pre-existing preformed second hand pressurized-gas cylinder for compressed, liquefied or dissolved gases, with a lower filling pressure.
20. A process according to claim 30, characterized in that most of the pressure resistance of the composite cylinder is from the liner.